

3rd Annual DOE/U.N. Hybrid Conference and Workshop

U.S. Department of Energy • Office of Fossil Energy • National Energy Technology Laboratory

*Held in Conjunction with DOE Federal Energy Management Program Meeting
"Distributed Generation and Combined Heat and Power for Federal Facilities"*

**May 13-15, 2003
Newport Beach, California**

TUESDAY, MAY 13, 2003

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- 10:00 am **Registration — Pacific Ballroom Foyer**
- 1:00 pm **Welcome and Introduction — Pacific Ballroom 1 and 2**
In Conjunction w/FEMP Meeting on Distributed Generation & Combined Heat & Power for Federal Facilities
Richard Dennis, Heat Engines Product Manager
U.S. Department of Energy, National Energy Technology Laboratory
Beth Shearer, Program Manager, FEMP
Paul Johnson, U.S. Department of Energy, Acting Seattle Regional Office Director
- 1:30 pm **Keynote Addresses**
In Conjunction w/FEMP Meeting on Distributed Generation & Combined Heat & Power for Federal Facilities
Distributed Generation in the 21st Century - Why Now, Why Here?
Clothilde Hewlett, Preston Gates & Ellis LLP, (Former Director of the Department of General Services, and Former Under Secretary of the State and Consumer Services Agency)
U.S. Department of Energy's Perspective on the Potential for Fuel Cell Turbine Hybrid Power Systems
Victor Der, Director, Office of Power Systems, U.S. Department of Energy
International Perspectives
Miles Greenbaum, Chairman, Committee on Sustainable Energy, U.N. Economic Commission for Europe
- 2:30 - 3:00 pm **Break — Pacific Ballroom**
- 3:00 - 4:00 pm ***Session I - Test Results from Sub-MW Hybrids***
Tubular SOFC Hybrid Power Systems
Steve Veyo, Siemens Westinghouse Power Corporation
Fuel Cell Energy Test Results and Future Plans
Hossein Ghezel-Ayagh, FuelCell Energy, Inc.
- 4:00 - 5:30 pm ***Session II - Hybrid System Studies***
Solid Oxide Fuel Cell Hybrids: Challenges and Benefits
Susan Fuhs, GE Power Systems
Cost Effective Hybrid Cycles and Supporting Turbomachinery
Gerry Agnew, Rolls-Royce Fuel Cell Systems, Ltd.
Scale Up of Integration of SECA Stack for Hybrid System
W. Peter Teagan, TIAX, LLC
- 5:30 - 7:30 pm **Reception and Poster Session**
University of California at Irvine, National Fuel Cell Research Center
Transportation will be provided to and from the University. Please be ready to board the bus in front of the hotel immediately after the conference adjourns.

**Office of Energy Efficiency
and Renewable Energy**



WEDNESDAY, MAY 14, 2003



- 7:00 am **Registration and Continental Breakfast — Pavilion**
- 8:00 am **Welcome — Pacific Ballroom 1 and 2**
Arun Jhaveri, U.S. Department of Energy
Office of Energy Efficiency and Renewable Energy
- 8:10 am ***Session III - Renewable Hybrid Systems***
Smart Energy Strategies - Integrating Solar Photovoltaics (PV) with Demand Side Management
Janice Lin, PowerLight Corp.
Commercialization of Hybrid Technologies: From Public to Private Sector
Woodrow W. Clark II, Governor's Office of Planning and Research
Solutions to the Technical Challenges of Hybrid Systems (Concrete Examples)
Christian Lagier, Northern Power Systems, Inc.
- 9:40 am ***Session IV - Hybrid Component Studies***
Power Electronics Interface for Integrating Multiple Distributed Generators
Burak Ozpineci, Oak Ridge National Laboratory
Incorporating Advanced Vehicle Technologies in Fleet Operations
Gary Gero, Assistant General Manager, City of Los Angeles
Controls for Hybrid Power Systems
Faryar Jabbari, University of California, Irvine
Energy Storage for Hybrid Power Systems
Richard Brent, Solar Turbines
- 10:30 - 11:00 am **Break — Pavilion**
- 11:00 - 12:00 pm ***Session IV - Hybrid Component Studies, (continued)***
- 12:00 - 1:00 pm **Group Lunch — Pavilion**
- 1:00 - 2:30 pm ***Session V - Hybrid Evolution and Deployment***
U.S. Department of Energy's Fossil Energy Fuel Cell Turbine Hybrid Research
Richard Dennis, Heat Engines Product Manager
U.S. Department of Energy, National Energy Technology Laboratory
Energy Efficiency and Renewable Energy Plan
Robert C. DeVault, Oak Ridge National Laboratory
The Shape of Large Scale Hybrids
Ashok Rao, University of California, National Fuel Cell Research Center
- 2:30 - 4:30 pm ***Session VI - Market Applications***
International Market Issues for Hybrid Systems
Byron Washom, Spencer Management Associates
NELHA Gateway Distributed Energy Resources Center
Jacqui Hoover, Natural Energy Laboratory of Hawaii Authority
Hybrid Applications in the Federal Energy Management Program
Beth Shearer, Program Manager, FEMP
- 3:00 - 3:30 pm **Break — Pavilion**
- 3:30 - 4:30 pm ***Session VI - Market Applications, (continued)***
- 4:30 pm **Adjourn**

THURSDAY, MAY 15, 2003



- 7:00 am **Registration and
Continental Breakfast —
Newport Bay Room**
- 8:00 am **Welcome and Workshop Guidelines — Newport Bay Room**
Richard Dennis, Heat Engines Product Manager
U.S. Department of Energy, National Energy Technology Laboratory
- 8:15 am **Break Outs — Session A: Emerald Bay Room; Session B: Newport Bay Room**
- 10:15 am **Break**
- 10:30 am **Group Reports — Newport Bay Room**
- 11:30 am **Consensus Discussion and Report**
- 12:30 pm **Adjourn**